==========

Sequence Listing was accepted with existing errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: Wed May 16 15:12:21 EDT 2007

==========

Validated By CRFValidator v 1.0.2

Application No: 10553491 Version No: 1.0

Input Set:

Output Set:

Started: 2007-05-16 12:32:14.849
Finished: 2007-05-16 12:32:28.599
Elapsed: 0 hr(s) 0 min(s) 13 sec(s) 750 ms
Total Warnings: 108
Total Errors: 65
No. of SeqIDs Defined: 117
Actual SeqID Count: 117

Error code		Error Description
W	213	Artificial or Unknown found in <213> in SEQ ID (8)
W	213	Artificial or Unknown found in <213> in SEQ ID (9)
W	213	Artificial or Unknown found in <213> in SEQ ID (10)
W	213	Artificial or Unknown found in <213> in SEQ ID (11)
W	213	Artificial or Unknown found in <213> in SEQ ID (12)
W	213	Artificial or Unknown found in <213> in SEQ ID (13)
W	213	Artificial or Unknown found in <213> in SEQ ID (14)
W	213	Artificial or Unknown found in <213> in SEQ ID (15)
W	213	Artificial or Unknown found in <213> in SEQ ID (16)
W	213	Artificial or Unknown found in <213> in SEQ ID (17)
W	213	Artificial or Unknown found in <213> in SEQ ID (18)
W	213	Artificial or Unknown found in <213> in SEQ ID (19)
W	213	Artificial or Unknown found in <213> in SEQ ID (20)
W	213	Artificial or Unknown found in <213> in SEQ ID (21)
W	213	Artificial or Unknown found in <213> in SEQ ID (22)
W	213	Artificial or Unknown found in <213> in SEQ ID (23)
W	213	Artificial or Unknown found in <213> in SEQ ID (24)
W	213	Artificial or Unknown found in <213> in SEQ ID (25)
W	213	Artificial or Unknown found in <213> in SEQ ID (26)
W	213	Artificial or Unknown found in <213> in SEQ ID (27)

Input Set:

Output Set:

Started: 2007-05-16 12:32:14.849
Finished: 2007-05-16 12:32:28.599
Elapsed: 0 hr(s) 0 min(s) 13 sec(s) 750 ms
Total Warnings: 108
Total Errors: 65
No. of SeqIDs Defined: 117
Actual SeqID Count: 117

Error code	Error Description
	This error has occured more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
E 257	Invalid sequence data feature in <221> in SEQ ID (114)
	This error has occured more than 20 times, will not be displayed

Sequence Listing

<110> Heidi Jenii Ackerly Wallweber et al.

<120> Compositions and Methods Relating to STOP-1

<130> P5104R1

<140> 10553491
<141> 2007-05-16

<150> US 10/553,491
<151> 2005-10-14

<150> PCT/US2004/011793
<151> 2004-04-16

<150> US 60/463,656
<151> 2003-04-16

<160> 117

<210> 1
<211> 1257
<212> DNA
<213> Homo sapiens

<400> 1
ggagagaggc gcgcgggtga aaggcgcatt gatgcagcct gcggcggcct 50

cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100

ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150

gccccgccgc ctccccgcag cggctccgcg gcctcctgct gctcctgctg 200

ctgcagctgc ccgcgccgtc gagcgcctct gagatcccca aggggaagca 250

aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300

gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350

aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400

agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacaccca 450

actacaagca gtgttcatgg agttcattga attatggcat agatcttggg 500

aaaattgcgg agtgtacatt tacaaagatg cgttcaaata gtgctctaag 550

agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600

agcgttggta tttcacattc aatggagctg aatgttcagg acctcttccc 650

attgaagcta taatttattt ggaccaagga agccctgaaa tgaattcaac 700

aattaatatt catcgcactt cttctgtgga aggactttgt gaaggaattg 750

gtgctggatt agtggatgtt gctatctggg ttggcacttg ttcagattac 800

ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850

tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900

ttattatgcc ttggaatggt tcacttaaat gacattttaa ataagtttat 950

gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagtg 1000

tgatttcaca ctgtttttaa atctagcatt attcattttg cttcaatcaa 1050

aagtggtttc aatatttttt ttagttggtt agaatacttt cttcatagtc 1100

acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150

ctcttagtat agcatttta aaaaaatata aaagctacca atctttgtac 1200

aatttgtaaa tgttaagaat ttttttttata tctgttaaat aaaaattatt 1250

tccaaca 1257

<210> 2
<211> 243
<212> PRT
<213> Homo sapiens

<400> 2

Met	Arg	Pro	Gln	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Arg	Leu	Arg	Gly
1				5				10					15	

Leu	Leu	Leu	Leu	Leu	Leu	Leu	Gln	Leu	Pro	Ala	Pro	Ser	Ser	Ala
				20				25					30	

Ser	Glu	Ile	Pro	Lys	Gly	Lys	Gln	Lys	Ala	Gln	Leu	Arg	Gln	Arg
				35				40					45	

Glu	Val	Val	Asp	Leu	Tyr	Asn	Gly	Met	Cys	Leu	Gln	Gly	Pro	Ala
				50				55					60	

Gly	Val	Pro	Gly	Arg	Asp	Gly	Ser	Pro	Gly	Ala	Asn	Val	Ile	Pro
				65				70					75	

Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys
				80				85					90	

Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn
				95				100					105	

Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu
				110				115					120	

Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser
				125				130					135	

```
 Ala Leu Arg Val Leu Phe Ser Gly Ser Leu Arg Leu Lys Cys Arg
                 140                 145                 150

 Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asn Gly Ala Glu
                 155                 160                 165

 Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile Tyr Leu Asp Gln
                 170                 175                 180

 Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His Arg Thr Ser
                 185                 190                 195

 Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu Val Asp
                 200                 205                 210

 Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly Asp
                 215                 220                 225

 Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
                 230                 235                 240

 Leu Pro Lys


<210> 3
<211> 243
<212> PRT
<213> Homo sapiens

<400> 3
 Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu Arg Gly
   1               5                  10                  15

 Leu Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala
                 20                  25                  30

 Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg
                 35                  40                  45

 Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala
                 50                  55                  60

 Gly Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro
                 65                  70                  75

 Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys
                 80                  85                  90

 Gly Glu Cys Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn
                 95                 100                 105

 Tyr Lys Gln Cys Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu
                110                 115                 120

 Gly Lys Ile Ala Glu Cys Thr Phe Thr Lys Met Arg Ser Asn Ser
                125                 130                 135
```

```
 Ala Leu Arg Val Leu Phe Ser Gly Ser Leu Arg Leu Lys Cys Arg
                 140                 145                 150

 Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asn Gly Ala Glu
                 155                 160                 165

 Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile Tyr Leu Asp Gln
                 170                 175                 180

 Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His Arg Thr Ser
                 185                 190                 195

 Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu Val Asp
                 200                 205                 210

 Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly Asp
                 215                 220                 225

 Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
                 230                 235                 240

 Leu Pro Lys
```

<210> 4
<211> 245
<212> PRT
<213> Mus musculus

<400> 4

```
 Met His Pro Gln Gly Arg Ala Ala Pro Pro Gln Leu Leu Leu Gly
   1               5                  10                  15

 Leu Phe Leu Val Leu Leu Leu Leu Leu Gln Leu Ser Ala Pro Ser
                  20                  25                  30

 Ser Ala Ser Glu Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg
                  35                  40                  45

 Gln Arg Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly
                  50                  55                  60

 Pro Ala Gly Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly
                  65                  70                  75

 Ile Pro Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly
                  80                  85                  90

 Glu Lys Gly Glu Cys Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr
                  95                 100                 105

 Pro Asn Tyr Lys Gln Cys Ser Trp Ser Ser Leu Asn Tyr Gly Ile
                 110                 115                 120

 Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe Thr Lys Met Arg Ser
                 125                 130                 135
```

```
 Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser Leu Arg Leu Lys
                 140                 145                 150

 Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asn Gly
                 155                 160                 165

 Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile Tyr Leu
                 170                 175                 180

 Asp Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn Ile His Arg
                 185                 190                 195

 Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
                 200                 205                 210

 Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys
                 215                 220                 225

 Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile
                 230                 235                 240

 Glu Glu Leu Pro Lys
                 245
```

<210> 5
<211> 229
<212> PRT
<213> Oryzias latipes

<400> 5

```
 Met Thr Pro Leu Ser Pro Arg Leu Leu Ile Leu Leu Cys Leu Ala
   1               5                  10                  15

 Leu Pro Leu His Gly Gln Glu Lys Gly Arg Ser Arg Gly Tyr Arg
                  20                  25                  30

 Lys Asp Pro Asp Ala Asp Lys Phe Gly Ser Cys Leu Gln Gly Pro
                  35                  40                  45

 Ala Gly Thr Pro Gly Arg Asp Gly Asn Pro Gly Ala Asn Gly Ile
                  50                  55                  60

 Pro Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Leu Lys Gly Glu
                  65                  70                  75

 Lys Gly Glu Cys Val Ser Glu Val Phe Glu Glu Pro Trp Lys Pro
                  80                  85                  90

 Asn Tyr Lys Gln Cys Ala Trp Asn Ser Leu Asn Tyr Gly Ile Asp
                  95                 100                 105

 Leu Gly Lys Ile Ala Asp Cys Thr Phe Thr Lys Leu Arg Ser Glu
                 110                 115                 120

 Ser Ala Leu Arg Val Leu Phe Thr Gly Ser Leu Arg Leu Lys Cys
                 125                 130                 135
```

```
 Lys Glu Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asp Gly Ala
                 140                 145                 150

 Glu Cys Thr Gly Pro Leu Pro Val Glu Ser Ile Ile Tyr Leu Asn
                 155                 160                 165

 Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn Ile His Arg Thr
                 170                 175                 180

 Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Lys Ala Gly Leu Val
                 185                 190                 195

 Asp Val Ala Leu Trp Val Gly Thr Cys Ala Asp Tyr Pro Arg Gly
                 200                 205                 210

 Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu
                 215                 220                 225

 Glu Leu Pro Lys


<210> 6
<211> 231
<212> PRT
<213> Danio rerio

<400> 6
 Met Gly Thr Lys Leu Thr Gln Leu Leu Ile Cys Phe Trp Ile Ser
   1               5                  10                  15

 Leu Pro Phe Cys Val Thr Gln Lys Ala Lys Glu Arg Ile Pro Arg
                  20                  25                  30

 Gln Arg Asp Ala Glu Phe Thr Asp Lys Tyr Gln Ala Cys Val Gln
                  35                  40                  45

 Gly Val Pro Gly Val Gln Gly Arg Asp Gly Asn Pro Gly Ile Asn
                  50                  55                  60

 Gly Ile Pro Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Leu Lys
                  65                  70                  75

 Gly Glu Lys Gly Glu Cys Val Ser Glu Arg Phe Glu Glu Pro Trp
                  80                  85                  90

 Lys Pro Asn Phe Lys Gln Cys Ala Trp Asn Ser Leu Asn Tyr Gly
                  95                 100                 105

 Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe Thr Lys Gln Arg
                 110                 115                 120

 Ser Asp Ser Ala Leu Arg Val Leu Phe Ser Gly Ser Leu Arg Leu
                 125                 130                 135

 Lys Cys Lys Thr Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asn
                 140                 145                 150
```

```
 Gly Ala Glu Cys Thr Gly Pro Leu Pro Ile Glu Ser Ile Val Tyr
                 155                 160                 165

 Leu Asp Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn Ile His
                 170                 175                 180

 Arg Thr Ser Thr Val Glu Gly Leu Cys Glu Gly Ile His Ala Gly
                 185                 190                 195

 Leu Val Asp Val Gly Ile Trp Val Gly Thr Cys Ala Asp Tyr Pro
                 200                 205                 210

 Arg Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Val Ile
                 215                 220                 225

 Ile Glu Glu Leu Pro Lys
                 230
```

<210> 7
<211> 201
<212> PRT
<213> Gallus gallus

<400> 7

```
 Arg Pro Arg Glu Val Leu Glu Ala Tyr Asn Gly Val Cys Leu Gln
   1               5                  10                  15

 Gly Pro Ser Gly Val Pro Gly Arg Asp Gly Asn Pro Gly Thr Asn
                 20                  25                  30

 Gly Ile Pro Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Pro Lys
                 35                  40                  45

 Gly Glu Lys Gly Glu Cys Leu Arg Glu Ser Ile Glu Glu Ser Trp
                 50                  55                  60

 Thr Pro Asn Phe Lys Gln Cys Ser Trp Ser Ala Leu Asn Tyr Gly
                 65                  70                  75

 Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe Thr Lys Met Arg
                 80                  85                  90

 Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser Leu Arg Leu
                 95                 100                 105

 Lys Cys Arg Ser Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asn
                110                 115                 120

 Gly Ala Glu Cys Ala Gly Pro Leu Pro Ile Glu Ala Ile Ile Tyr
                125                 130                 135

 Leu Asp Gln Gly Ser Pro Glu Leu Asn Ser Thr Ile Asn Ile His
                140                 145                 150

 Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Asn Ala Gly
                155                 160                 165
```

```
 Leu Val Asp Ile Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro
                 170                 175                 180

 Arg Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile
                 185                 190                 195

 Ile Glu Glu Leu Pro Lys
                 200
```

<210> 8
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 8
```
 Thr Ile Ser Gly Ser Asp
                   5
```

<210> 9
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 9
```
 Gly Arg Ile Ser Pro Tyr Gly Gly Asn Thr Asn
                   5                  10
```

<210> 10
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 10
```
 Cys Ala Arg Val Gly Gly Leu Lys Leu Leu Phe Asp Tyr
                   5                  10
```

<210> 11
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 11
```
 Thr Ile Thr Asn Ser Asp
                   5
```

<210> 12
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 12
Ala Thr Ile Tyr Pro Tyr Gly Gly Tyr Thr Tyr
5 10

<210> 13
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 13
Cys Ala Arg Gly Gly Gly Met Asp Gly Tyr Val Met Asp Tyr
5 10

<210> 14
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 14
Thr Ile Asn Asn Tyr Asp
5

<210> 15
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 15
Gly Tyr Ile Ser Pro Pro Ser Gly Ala Thr Tyr
5 10

<210> 16
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 16

Cys Ala Arg Met Val Gly Met Arg Arg Gly Val Met Asp Tyr
5 10

<210> 17
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 17
Thr Ile Ser Gly Ser Trp
5

<210> 18
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 18
Ala Trp Ile Ala Pro Tyr Ser Gly Ala Thr Asp
5 10

<210> 19
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 19
Cys Ala Arg Glu Gly Gly Leu Tyr Trp Val Phe Asp Tyr
5 10

<210> 20
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 20
Thr Ile Ser Asn Tyr Gly
5

<210> 21
<211> 11
<212> PRT
<213> Artificial sequence

<220>

<223> sequence is synthesized

<400> 21
Gly Arg Ile Ser Pro Ser Asn Gly Ser Thr Tyr
5 10

<210> 22
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 22
Cys Ala Lys Cys Ser Val Arg Phe Ala Tyr
5 10

<210> 23
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 23
catccagtag aagcatctcc ttttgggtaa 30

<210> 24
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 24
gggttggcac ttgttcaga 19

<210> 25
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> sequence is synthesized

<400> 25
caataatgat gcgagaaact gaat 24

<210> 26
<211> 266
<212> DNA
<213> Artificial sequence

<220>

<223> sequence is synthesized

<400> 26
gggagccatg cgaccccagg gccccgccgc ctccccgcag cggctccgcg 50

gcctcctgct gctcctgctg ctgcagctgc ccgcgccgtc gagcgcctct 100

gagatcccca aggggaagca aaaggcgcag ctccggcaga gggaggtggt 150